

IN THE CLAIMS:

Applicants make no amendment to the claims.

1. (formally amended) An electronic device comprising:
 - a device section including a plurality of logical devices;
 - a USB transmitter-receiver having one or more endpoints for sending and receiving to/from a host computer information via a universal serial bus, said one or more endpoints being shared by said plurality of logical devices; and
 - a controller which, on the basis of information from said host computer designating a desired logical device in said device section, selects one or more endpoints required for sending and receiving information between said logical device and said host computer from the endpoints within said USB transmitter-receiver and connects said one or more endpoints with said logical device.
2. (formally amended) An electronic device according to claim 1, wherein said USB transmitter-receiver includes an endpoint for a control transfer, and
 - wherein said controller receives, from said host computer, information specifying a desired logical device via said endpoint for a control transfer, and connects one or more endpoints selected from said one or more endpoints of said USB transmitter-receiver to said logical device.
3. (formally amended) An electronic device according to claim 1, wherein said USB transmitter-receiver includes an endpoint for a control transfer, and
 - wherein said controller receives, from said host computer, information specifying a desired service via said endpoint for a control transfer, and connects one or more endpoints selected from said one or more endpoints of said USB transmitter-receiver to a logical device corresponding to the said service.
4. (formally amended) An electronic device according to claim 1, wherein said USB transmitter-receiver performs a control transfer with said host computer via an endpoint for a control transfer in said USB transmitter-receiver, thereby setting a function of an

endpoint used in sending and receiving information between said logical device and said host computer.

5. (formally amended) An electronic device according to claim 1, wherein said USB transmitter-receiver has a plurality of interfaces formed by one or more endpoints, and one of these interfaces includes an endpoint for a control transfer; and

wherein said controller receives information specifying said desired logical device from said host computer via said endpoint for a control transfer, selects an interface required for sending and receiving information with said host computer from among the interfaces of said USB transmitter-receiver, and connects said interface with said logical device.

6. (formally amended) An electronic device according to claim 1, wherein said USB transmitter-receiver has an endpoint for a control transfer and a plurality of interface blocks corresponding to a plurality of ports, and each interface block has a plurality of interfaces formed by one or a plurality of endpoints, and

wherein, when said host computer receives a desired service via a desired port, said controller receives information specifying said desired service from said host computer via said endpoint for a control transfer, and connects an interface block corresponding to said port within said USB transmitter-receiver to a logical device corresponding to said service.

7. (formally amended) An electronic device according to claim 6, wherein, when said host computer requests to receive a different service from another port while using said logical device via said port, said controller connects an interface block corresponding to said another port to a logical device corresponding to said different service.

8. (formally amended) An electronic device according to claim 1, wherein said USB transmitter-receiver has a plurality of interface blocks corresponding to a plurality of ports, each said interface block has a plurality of interfaces each formed by one or a plurality of endpoints, and one interface of said interfaces includes an endpoint for control transfer; and

wherein, when said host computer receives a desired service via a desired port, said controller receives, from said host computer, information specifying said desired service via said control transfer endpoint, which is included in an interface block corresponding to said desired port in said USB transmitter-receiver, and connects a logical device corresponding to said service to an interface block corresponding to said port within said USB transmitter-receiver.

9. (formally presented) A mobile device that provides multiple functionalities for a host computer through USB communication, comprising:

a plurality of logical devices that provide different functionalities and are all recognizable under one USB address by the host computer;

a USB that comprises multiple endpoints which collectively provide multiple data transfer functionalities and at least some of which are reconfigurable to provide different data communication capabilities for the logical devices;

a device selector that, in response to a service request from the host computer, dynamically connects one or more endpoints to a logical device adapted to provide the requested service; and

an endpoint configurator that reconfigures, if necessary, some of the one or more endpoints to effect data communication between the host computer and the selected logical device.

10. (formally presented) A mobile device according to claim 9, wherein the logical devices comprise at least a device selected from a group consisting of a voice communication device, a packet communication device, a telephone directory exchange device, an unlimited digital communication device, a printer and a modem.

11. (formally presented) A mobile device according to claim 9, wherein the endpoints comprise an endpoint for control transfer through which at a setup stage, configurations of the logical devices are informed to the host computer by the mobile device.

12. (formally presented) A mobile device according to claim 9, wherein the service request from the host computer comprises an identification of a service desired by the host computer.

13. (formally presented) A mobile device according to claim 9, wherein the service request from the host computer comprises an identification of a logical device that provides the requested service.

14. (formally presented) A mobile device according to claim 13, further comprising a controller that determines, in response to the service request from the host computer, whether or not the requested logical device is available to serve the host computer.

15. (formally presented) A mobile device according to claim 9, wherein the endpoint configurator reconfigures the endpoints at a request from the host computer.

16. (formally presented) A mobile device according to claim 9, wherein the USB comprises a plurality of USB blocks each connected to the host computer through an assigned port and each connectable to any of the logical devices through an assigned logical device selector.

17. (formally presented) A mobile device according to claim 9, wherein one of the endpoint is adapted specifically for control transfer between the host computer and a controller of the mobile device.

18. (formally presented) A method for providing different functionalities to a host computer through a USB, comprising the steps of:

- providing a mobile device with a plurality of logical devices that provide different functionalities and are all recognizable under one USB address by the host computer, wherein the mobile device is connected to the host computer;
- notifying the host computer of configurations of the logical devices through a USB that comprises multiple endpoints which collectively provide multiple data transfer functionalities and at least some of which are reconfigurable to provide different data communication capabilities for the logical devices;
- receiving a service request from the host computer through the USB;
- dynamically connecting one or more endpoints to a logical device adapted to provide the request service; and

reconfiguring, if necessary, some of the one or more endpoints to effect data communication between the host computer and the selected logical device.

19. (formally presented) A method according to claim 18, wherein the logical devices comprise at least a device selected from a group consisting of a voice communication device, a packet communication device, a telephone directory exchange device, an unlimited digital communication device, a printer and a modem.

20. (formally presented) A method according to claim 18, wherein the service request from the host computer comprises an identification of a service desired by the host computer.

21. (formally presented) A method according to claim 18, wherein the service request from the host computer comprises an identification of a logical device that provides the requested service.

22. (formally presented) A method according to claim 21, further comprising determining, in response to the service request from the host computer, whether or not the requested logical device is available to serve the host computer.

23. (formally presented) A method according to claim 18, wherein reconfiguring one or more endpoints comprises reconfiguring one or more endpoints at a request from the host computer.